

I Claim:

1. A method for generating a representation of a particular signal among a plurality of received signals; each respective signal of said plurality of signals representing a respective line among a plurality of lines in a video display; each said respective signal including a first signal component and a second signal component; said first signal component having a first bandwidth between a first frequency and a second frequency; said second signal component having a second bandwidth between said first frequency and said second frequency; said second bandwidth being less than said first bandwidth; the method comprising the steps of:
 - (a) in no particular order:
 - (1) measuring first samples of said first signal component outside said second bandwidth for a particular time interval in each said respective signal to determine first sample differences between selected said first samples; and
 - (2) measuring second samples of said second signal component inside said second bandwidth for said particular time interval in each said respective signal;
 - (b) in no particular order:
 - (1) establishing a plurality of weighting factors based upon said first sample differences; and
 - (2) establishing a plurality of filter modes for selectively filtering said plurality of signals based upon said second samples;
 - (c) establishing a correlation between said plurality of weighting factors and said plurality of filter modes;
 - (d) filtering said plurality of signals using a selected filter mode of said plurality of filter modes; said selected filter mode being selected using said second samples;
 - (e) identifying a selected weighting factor of said plurality of weighting factors according to said correlation for said selected filter mode;

29 (f) employing said selected weighting factor to effect weighted mixing of said
30 samples to generate said representation of said particular signal for said particular
31 time interval; and
32 (g) repeating steps (a) through (f) until representation of said particular signal is
33 completed.

1 2. A method for generating a representation of a particular signal among a plurality of
2 received signals as recited in Claim 1 wherein the method comprises the further steps
3 of:

4 (h) when representation of said particular signal is completed, selecting another
5 plurality of signals in said video display; and
6 (i) repeating steps (a) through (h) until representation of said video display is
7 complete.

1 3. A method for generating a representation of a particular signal among a plurality of
2 received signals as recited in Claim 1 wherein said first signal component represents
3 luminance of said respective signal and said second signal component represents color
4 content of said respective signal.

1 4. A method for generating a representation of a particular signal among a plurality of
2 received signals as recited in Claim 1 wherein said plurality of lines is five lines.

1 5. A method for generating a representation of a particular signal among a plurality of
2 received signals as recited in Claim 2 wherein said first signal component represents
3 luminance of said respective signal and said second signal component represents color
4 content of said respective signal.

1 6. A method for generating a representation of a particular signal among a plurality of
2 received signals as recited in Claim 2 wherein said plurality of lines is five lines.

1 7. A method for generating a representation of a particular signal among a plurality of
2 signals; each respective signal of said plurality of signals representing a respective
3 line among a plurality of lines in an image; each said respective signal including a
4 first signal component and a second signal component; said first signal component
5 representing luminance of said image and having a first bandwidth between a lower
6 frequency and an upper second frequency; said second signal component representing
7 color content of said image and having a second bandwidth between a third frequency
8 and a fourth frequency; said third frequency being greater than said lower frequency;
9 said fourth frequency being less than said upper frequency; the method comprising the
10 steps of:

11 (a) receiving a set of n lines of said plurality of lines; said set of n lines including
12 said particular line;

13 (b) in no particular order:

14 (1) measuring a respective first sample of said first signal component of
15 each respective line of said n lines; each said respective first sample
16 appearing along a predetermined axis in said image; and

17 (2) measuring a respective second sample of said second signal component
18 of each said respective line;

19 (c) in no particular order:

20 (1) establishing a plurality of weighting factors based upon sample
21 differences between selected samples of said respective first samples; and

22 (2) establishing a plurality of filter modes for selectively filtering said
23 plurality of signals based upon said second samples;

24 (d) establishing a correlation between said plurality of weighting factors and said
25 plurality of filter modes;

26 (e) filtering said plurality of signals using a selected filter mode of said plurality of
27 filter modes; said selected filter mode being selected using said second samples;

28 (f) identifying a selected weighting factor of said plurality of weighting factors
29 according to said correlation for said selected filter mode;

30 (g) employing said selected weighting factor to effect weighted mixing of said
31 samples to generate said representation of said particular signal for said particular
32 time interval; and
33 (h) repeating steps (a) through (g) until representation of said particular signal is
34 completed.

1 8. A method for generating a representation of a particular signal among a plurality of
2 signals as recited in Claim 7 wherein the method comprises the further steps of:
3 (i) when representation of said particular signal is completed, receiving a new set
4 of n lines of said plurality of lines; said new set of n lines including a new
5 particular line; and
6 (j) repeating steps (a) through (i) until representation of said image is complete.

1 9. A method for generating a representation of a particular signal among a plurality of
2 signals as recited in Claim 7 wherein n is five.

1 10. A method for generating a representation of a particular signal among a plurality of
2 signals as recited in Claim 7 wherein said predetermined axis is a vertical axis.

1 11. A method for generating a representation of a particular signal among a plurality of
2 signals as recited in Claim 8 wherein n is five.

1 12. A method for generating a representation of a particular signal among a plurality of
2 signals as recited in Claim 8 wherein said predetermined axis is a vertical axis.